



SOUTH CAROLINA WILDLIFE FEDERATION

November 17, 2008

State Regulation of Public Utilities Review Committee
PO Box 142
Columbia, SC 29202

Dear Committee Members:

Thank you for the opportunity to address you on the most important issue of our time, energy policy. The development and use of energy resources is at the heart of most of our current crises. Energy development and use cannot be separated from our environmental problems such as air pollution and climate change, but energy issues also play a definite role in our war on terrorism, national security and financial instability. A twenty-first century, forward-looking energy policy is the key to a healthy planet, secure nation and a vital economy.

We believe it is possible to solve our energy crisis, and that South Carolina is in a good position to be on the cutting edge in the development and deployment of new energy technologies. We have the opportunity to expand our economy by nurturing this fast growing economic sector, providing new prospects for entrepreneurs and developing many new jobs in some of our poorest counties. But we need to act sooner rather than later. It is probable that the federal government will pass sweeping climate change legislation within the next two years. This legislation will place a price on carbon emissions and, among other things, provide money to states to transition to the new energy future. Those states that have plans in place will be in a better position to take advantage of this situation and will get a "jump start" on the competition.

Questions:

1. What action do you anticipate from the U.S. Congress as to climate change legislation? What impact may this have on South Carolina?

Congress is poised to enact some sort of climate legislation in the upcoming session. President elect Obama has stated that addressing climate change will be one of the principle themes of his administration. If he provides the expected leadership on this issue, it is hard to imagine that progress will not be made.

The most promising attempts at climate legislation in congress so far have involved a cap and trade system that would cap the amount of carbon allowed to be emitted by industry, require industry to buy emission credits for the carbon that is released, and would provide a trading system for the emission credits. A similar system was instituted in the early 1990s under George Bush, Sr's administration to address acid rain. This program was very successful in reducing emissions and it did so at a very reasonable cost, being cheaper than even its backers had thought possible.

So far two cap and trade proposals have received serious consideration in the US Senate. The McCain-Lieberman bill of 2005, and most recently, the Lieberman-Warner bill of 2008. The latter made it out of committee, but failed to receive enough votes in a procedural move to be considered by the Senate. Even so, fifty four senators said they would have voted for the bill if it had come before them for a vote. This was up from the thirty five senators who had supported the previous bill in 2005.

Historically this issue have not progressed as much in the House, but recently a bill was introduced which appears to have bipartisan support. Congressman Clyburn, the House Majority Whip, stated in August that he expected to see a strong bill come from the House in the upcoming session, and most people seem to think that the house will actually act on this issue before the Senate.

So although it is difficult to predict what congress will do on such a controversial issue, momentum seems to be building for a cap and trade bill in the near future. This is not only our opinion, but also the opinion of the National Wildlife Federation staff in Washington, DC. They work very closely with congressional staff and feel that something is going to happen within the next two years.

The impact on South Carolina will be positive. We can expect to see new jobs created as this new sector of the economy develops. Renewable energy generation is more job intensive than traditional power generation, so this bodes well for raising employment levels. It will also create new business opportunities. There will be a need for entrepreneurs to fill the need for new sources of energy generation, many at a small scale. If money from the sale of emission credits is returned to the states as envisioned in the previous proposed cap and trade systems, then there will be start up money for these businesses.

When thinking of the impact of climate legislation, it is important to remember that no action on this issue has serious implications for South Carolina. We do not have the option of continuing business as usual. While no one can predict exactly how much our climate will change, scientists are confident that it will change. Our rainfall patterns will be disrupted, with rain coming at longer intervals and more rain falling in a shorter space

of time. This could spell disaster for our farmers and may well put an insurmountable strain on our ability to meet our growing water needs for people and industry while continuing to provide the needed water for a healthy environment for wildlife.

One very disturbing aspect of climate change is that it will increase the rate of sea level rise, with the current conservative estimation being between two to five feet of rise in this century. A rise in sea level of that magnitude would flood many low-lying areas along our coast. The old city of Charleston already faces issues with high tides, and industry up the Cooper River has had problems with salt water infiltrating their freshwater intakes. And of course a sea level rise of this magnitude would potentially destroy our salt marsh that we have worked so hard to protect.

Scientists also predict that a warming climate will have unpredictable impacts on tropical storms and hurricanes, possibly making them more frequent, or stronger, or both. We can also expect an influx of plants, animals, insects, and diseases to migrate northward as our state warms, changing and potentially destroying ecosystems and our current farming practices.

2. Does South Carolina have governmental resources available to study, plan, or act upon current or future energy policies? Are these resources sufficient? Are these resources appropriately empowered to act? Is there any overlapping of roles?

The Lieberman Warner bill had a number of revenue streams generated by the sale of emission allowances. Some of these would have come back to the states to administer. Obviously South Carolina would need to have the infrastructure in place to accept and spend this money. No doubt the federal government would require a plan to be in place before they allocated this money to a state, and it is hoped that they would provide the states with a template for this plan. We understand that some states are going forward with developing such plans to be ready if and when this money becomes available.

We believe that South Carolina does not have the people and institutions in place to study, plan and act upon new energy policies. In any scenario, it would seem that we would need to make sure we have a vibrant state Energy Office. At present our Energy Office is doing a very good job of staying abreast of the situation and providing leadership on this issue. It would seem that this office should be the focal point for developing and implementing any energy plan that is developed by the state. With this increased emphasis on energy, we would definitely need to provide more resources to meet the added responsibilities.

3. How do we use electricity in South Carolina? How is our use different from other states, with respect to amount of use and type of use? What factors drive this usage? What can we do to better use our energy resources? What demographic or other factors prohibit or inhibit our ability to be more energy efficient?

The Governor's CECAC report covers this topic very thoroughly and the State Energy Office has additional information.

4. What types of renewable sources of energy are available in South Carolina? What is the expected cost to produce and transmit electricity from those resources?

South Carolina has a number of options on renewable energy. We have abundant sunshine, much more than Germany which currently gets a significant percentage of its energy from solar power. Solar could provide an important source of power for much of the state, particularly on hot sunny days when our electricity usage is at its highest. One of the major advantages of solar power is that it can be located close to the users, thus reducing transmission costs. In fact individual solar collectors on houses, businesses and factories has no transmission cost.

We also have available wind power offshore. This resource has been mapped and the State Energy Office has this information. This mapping effort revealed that we have an abundant wind resource that is close enough to the coast and in shallow enough water that it could be economically tapped.

Bio-mass also holds out great promise. With our abundant forest and agricultural lands we could become a leading producer of bio-mass energy. Our forest by-products are already being harvested for this purpose on a small scale, with most of the product being shipped overseas. With some encouragement, this could become a major industry in the state. The same is true of bio-mass from agricultural lands. This is especially true of the old tobacco growing areas in the Pee Dee region. Clemson is conducting research in this area on switchgrass production, a native plant. Switchgrass grows in the same conditions that produced tobacco, and could become a major crop in this economically depressed part of our state. The production and processing of bio-mass from non-food growing areas, could significantly increase our job and tax base, attracting capital to the area.

5. What types of non-native renewable resources are available to South Carolina? What is the expected cost to transmit electricity from those resources to South Carolina?

We are not sure what is meant by the term "non-native renewable resources." If the intent is to look into bringing in non-native plants to use for bio-mass production, we advise caution. Exotic species can cause unintended consequences. One only has to look at kudzu or Chinese tallow trees to see what can happen if non-native plants are introduced into our environment. It is probably impossible to prevent species from escaping into the wild, where they can displace native species, and possibly cause disruptions in our existing ecosystems.

6. What programs that promote energy efficiency exist in our state? Are these programs affordable to all South Carolinians? Should they be affordable to all South Carolinians?

Are energy efficiency measures a cost-effective alternative to the construction and operation of generation facilities? How should energy efficiency incentives be designed?

Others are more knowledgeable on this subject, particularly Ben Moore with the Coastal Conservation League. Our understanding is that existing programs fall far short of what could be done to promote energy conservation in our state. Other states are much more advanced in this area and could provide guidance on what could be done on this issue.

7. The heavy use of concrete and steel to construct coal and nuclear generating facilities in China, India, and other developing nations and the importation of fuel needed to create energy from those facilities has increased the price of these raw materials and commodities beyond most projections. Is this level of growth sustainable? Will prices continue to be driven by this global demand? How will South Carolina be affected by this global demand?

All indications are that the economies of China and India are going to continue to grow for the rest of this century. We can expect both of them to be serious competitors for raw materials for the foreseeable future. This includes oil, coal and other energy sources. This increased competition has and will continue to result in rising commodity prices worldwide. South Carolina will face the same facts as the rest of the western world and will see costs rise on non-renewable energy resources and on many other resources. Our best hope for reducing our costs in the long run is to find home-grown sources of energy for which we do not have to compete. Petroleum and natural gas do not meet this criteria as both are traded on the world commodity market, and we pay the same price whether they are produced in the US or some other part of the world.

8. How has the current economic situation affected the projections for energy use?

The current economic situation has reduced worldwide energy use because of a contraction of capital for new projects. However as soon as the world's economy recovers, we can expect demand for energy to continue to rise. This will be true for the rest of this century as the population of the world increases by half, and many formerly depressed countries develop their economies. The rising standard of living over much of Asia will result in increased competition for resources, resulting in higher prices for these resources.

It would be a mistake to use the economic crisis to pull back from pursuing reductions in carbon emissions and investing in renewable sources of energy. Climate change is only going to make the world's economy more unstable, mostly resulting in higher commodity prices for natural resources. The sooner we can develop renewable energy supplies, the better off we are going to be in the long run. Additionally, investing in renewable energy will actually help grow our economy and offer a buffer from rising prices for fossil fuels.

Thank you again for allowing us to comment on this issue. We would be happy to provide further information and to testify if needed.

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